## CC Docket No. 94-102 – 4th Quarter 2004 E911 Interim Report

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**Date:** January 3, 2005

**To:** Marlene H. Dortch, Secretary
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**By Electronic Submission:**

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# TIER III CARRIER INTERIM REPORT
# FOURTH QUARTER 2004
# CC Docket No. 94-102

Keystone Wireless, L.L.C. ("Keystone") hereby submits its E911 Interim Report, pursuant to *Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, Phase II Compliance Deadlines for Non-Nationwide CMRS Carriers,* CC Docket No. 94-102, FCC 02-210, released July 26, 2002 (*Non-Nationwide Carrier E911 Order)*, *Public Notice*, DA 03-2113, released June 30, 2003, and *Order to Stay*, FCC 03-241, released October 10, 2003.

**Carrier Identifying Information:**

**Carrier Name:** Keystone Wireless, L.L.C. – FRN 0007 4157 06

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**E911 Implementation Information:**

Keystone is a small wireless carrier serving only rural or other less-densely populated areas. Keystone hereby reports as follows:

# Keystone has received only two Phase I requests (from Berks County and Schuykill County) and one Phase II request (from Schuykill County). Keystone has been operational at the Phase I level in Berks County since 2002. Regarding Schuykill County, where the Phase I and Phase II requests were made simultaneously in 2004, Keystone obtained and installed all of the network equipment and software necessary to meet this PSAP's Phase I request, and installed a land line between the switch and the requesting PSAP for Phase I deployment. Keystone did not encounter any problems in meeting the PSAP's Phase I request. Subsequent to this Phase I deployment, the PSAP advised that it could not obtain enough government funds to both upgrade its facilities for a Phase I CAS solution (which Keystone had implemented) and then upgrade again for Phase II, which second upgrade would be NCAS. To accommodate this PSAP's need, Keystone is now moving to convert the Phase I solution from a CAS to an NCAS solution, at Keystone's sole expense. Subsequently, the PSAP demanded immediate implementation of Phase II E911 by Keystone, although the PSAP has not yet implemented Phase II E911 itself.

# Keystone originally had elected to employ a handset-based solution compatible with the GSM technology of Keystone's PCS network. However, as discussed in Keystone's last Interim Report, due to the failure of handset manufacturers to meet their earlier promises regarding handset availability, and their subsequent advice that all efforts to develop a GSM-

based handset solution had ceased, Keystone had to change that plan. Keystone is now reviewing a hybrid network/handset-based solution that supports GSM technology, which is being developed by Nortel.

# Keystone has installed all of the necessary network equipment for Phase I E911 deployment. Keystone has experienced and anticipates it will continue to experience significant problems with its Phase II E911 deployment. As previously reported, the vendor of Keystone's GSM handsets, Nokia, advised Keystone in July of 2003, that there would be no Phase II-compliant GSM handsets forthcoming, now or in the foreseeable future. Keystone is unable to switch to a traditional network-based solution because it is technically impossible. Keystone operates only in less densely populated areas where the cell sites are spread far apart and there is little overlap between two cells and even less overlap among three cells. Only a minor portion of Keystone's service area is potentially susceptible to triangulation techniques; the bulk of the service area is not susceptible to triangulation and Keystone could never meet the accuracy levels set forth in Section 20.18(h) of the Commission's rules.

However, Keystone has been researching a new hybrid network/handset-based technology for Phase II E911 being developed by Nortel, and has elected to utilized this Phase II E911 solution in its market if it proves out. This technology involves a two-step process for full Phase II deployment. The first step requires implementation of a network-based solution that enables greater ALI capability on the part of the carrier and the PSAP without resort to any special handsets. This is only an interim solution and is not fully Phase II compliant. Installation of this network-based technology would provide a level of accuracy better than Phase I, but short of Phase II. The second step requires the distribution and use of special "assisted-GPS" ("A-GPS") handsets, which are currently not available. The addition of these A-GPS handsets, once developed, would make this hybrid solution fully Phase II compliant (at least according to Nortel's non-binding assurances).

Nortel scheduled tests for the A-GPS GSM handsets for the first quarter of 2004, but did not actually begin those tests until the latter part of 2004, and has not yet completed its tests. Nortel advised that it anticipates that its A-GPS handsets will be available to large carriers within the first quarter of 2005, and to Tier II and Tier III carriers in the second quarter of 2005, at the earliest; however, it is not certain that Nortel will adhere to this distribution schedule. Based upon past experience, Keystone believes it unlikely that Nortel will make handsets available to Tier III carries until the third quarter of 2005.

Keystone has informed the requesting PSAP of its plan to implement this hybrid Phase II E911 solution, and of the specifics of the two-step implementation process. The involved PSAP has expressed some concern about Keystone's proposed implementation schedule. Keystone recently retained the services of Intrado to assist Keystone in working with the PSAP to resolve this matter; including advising the PSAP of the technical limitations on implementing Phase II E911 in rural areas, and Keystone's progress in implementing Phase II E911. Keystone also continues to work on obtaining financing for the infrastructure and implementation of this hybrid solution.

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The original price quote Keystone received from Nortel for this hybrid solution was exceedingly high. Keystone is continuing to negotiate for vendor financing and is still seeking government cost-recovery funding to cover all or a portion of the required expenditures, to allow it to implement this solution.

# For the reasons discussed above, Keystone does not anticipate that Phase II E911 service will be available in its network in the near future, but anticipates that it could begin to become available, in part, by the latter half of 2005. Keystone anticipates that Phase II service would be available in its network by October 2006.[1] Keystone has a request pending with the Commission for a waiver of the Phase II requirements. Nortel will not guarantee that even after Keystone fully implements the hybrid solution that it will be able to meet all of the E911 Phase II accuracy requirements under §20.18(h) of the Commission's Rules, *i.e.*, Keystone may not reach the requisite 67% and 95% accuracy requirements prescribed by §20.18(h)(1) or (2)[2] of the rules because its market is very rural or less densely populated. Therefore, Keystone's waiver requests also seeks a wavier of §20.18(h) of the Phase II requirements until December 31, 2011, by which time there should be further technological advancements in this field allowing for full compliance with §20.18(h) of the rules.

# With regard to meeting the ultimate implementation date of December 31, 2005, see above.

[1] Whether such service could or would meet the accuracy thresholds of §20.18(h) is problematic, and could not be determined until the infrastructure is installed and activated.

[2] Because the TA/NMR solution is a hybrid network/handset-based solution, it is unclear whether §20.18(h)(1), which is applicable to network-based technologies, or §20.18(h)(2), which is applicable to handset-based technologies, would apply.

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